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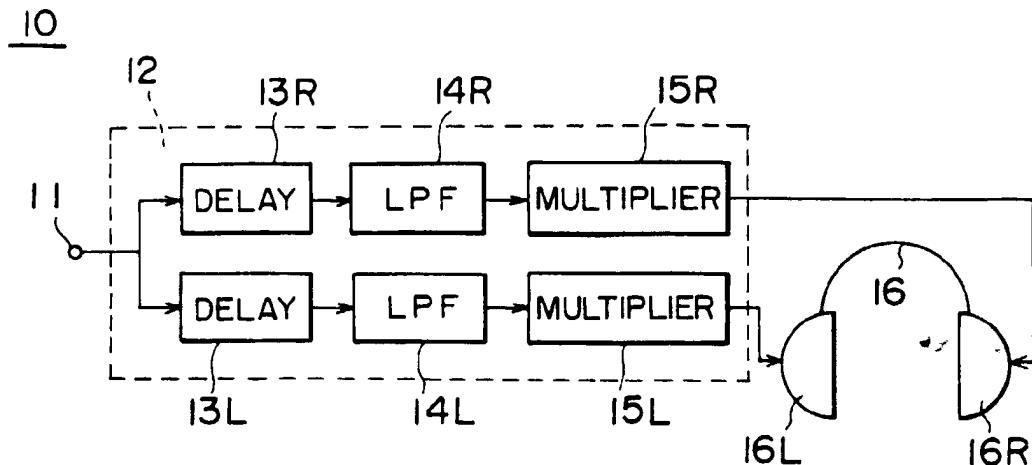
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(54) Headphone reproducing apparatus

(57) A headphone reproducing apparatus creates a virtual sound. A listener feels as if a sound came from a virtual sound source that imaginarily exists in a space apart from the listener. A delay circuit delays a first-channel input audio signal and a second-channel input audio signal by predetermined delay times. A low-pass filter changes frequency characteristics of the first- and second-channel input signals to predetermined fre-

quency characteristics. A multiplier changes sound levels of the first- and second-channel input audio signals to predetermined sound levels. The delay circuit, low-pass filter, and multiplier are connected in series to each other. A headphone reproduces the first- and second-channel input signals processed by the delay circuit, low-pass filter, and multiplier as the sound that comes from the virtual sound source.



F I G. 4



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<p>The present search report has been drawn up for all claims</p> <table border="1"> <tr> <td>Place of search</td> <td>Date of completion of the search</td> <td>Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>15 April 1999</td> <td>Zanti, P</td> </tr> <tr> <td colspan="3">CATEGORY OF CITED DOCUMENTS</td> </tr> <tr> <td colspan="3"> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document </td> </tr> <tr> <td colspan="3"> T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document </td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	15 April 1999	Zanti, P	CATEGORY OF CITED DOCUMENTS			X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		
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